Application No. 09/990,899
Amendment filed August 26, 2004
Reply to Office Action of May 26, 2004

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1.   (Original) A method comprising:

verifying if a brand string feature is supported on a processor;

retrieving a brand string;

interpreting the brand string which includes information pertaining to a maximum
operating frequency of the processor; and

outputting the maximum operating frequency.

2.   (Original) The method of claim 1, wherein interpreting the brand string includes
scanning the brand string in reverse order for a quantity.

3.   (Original) The method of claim 1, wherein verifying a brand string feature is supported
on a processor is accomplished by verifying if a value loaded in a register by a processor
identification instruction is greater than or equal to a selected value.

4.   (Currently Amended) The method of claim 3+, wherein the register is the EAX register,
the processor identification instruction is the CPUID instruction, and the selected value is
80000000h.

5.   (Original) A method comprising:

loading a register with a first specified value;

executing a processing instruction;

verifying that the returned value in the register logically anded with a second specified value
does not equal zero;

verifying that a value the processing instruction returns is greater than or equal to a third
specified value;

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scanning the string in reverse order for at least one specified substring;

parsing the next digits as a decimal number;

determining a multiplier value according to the specified substring;

multiplying the decimal number by the multiplier value to output a maximum operating frequency.

6.   (Original) The method of claim 5, wherein the register is one of a plurality of general purpose registers.

7.   (Original) The method of claim 5, wherein the first specified value is 0x80000000.

8.   (Original) The method of claim 5, wherein the specified substring is at least one of "zHM", "zHG", and "zHT".

9.   (Original) A machine-readable medium that provides instructions, which when executed by a machine, causes the machine to perform operations comprising:

verifying if a brand string feature is supported on a processor;

retrieving a brand string;

retrieving a maximum operating frequency of the processor from the brand
string; and

outputting the maximum operating frequency.

10.   (Original) The machine-readable medium of claim 9, wherein retrieving the maximum operating frequency of the processor from the brand string includes scanning the brand string in reverse order for the maximum operating frequency.

11.   (Original) The machine-readable medium of claim 9, wherein verifying if a brand string feature is supported on a processor is accomplished by verifying a value loaded in a register by a processor identification instruction is greater than or equal to a selected value.

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12.   (Original) A machine-readable medium that provides instructions, which when executed by a machine, causes the machine to perform operations comprising:

loading a register with a first specified value;

executing a processing instruction;

verifying that the returned value in the register logically anded with a second specified value does not equal zero;

verifying that a value the processing instruction returns is greater than or equal to a third specified value;

scanning the string in reverse order for at least one specified substring;

parsing the next digits as a decimal number;

determining a multiplier value according to the specified substring;

multiplying the decimal number by the multiplier value to output a maximum operating frequency.

13.   (Original) The machine-readable medium of claim 12, wherein the register is one of a plurality of general purpose registers.

14.   (Original) The machine-readable medium of claim 12, wherein the register is the EAX register.

15.   (Original) The machine-readable medium of claim 12, wherein the first specified value is 0x80000000, the processing identification instruction is a CPUID instruction, and the third specified value is 80000004.

16.   (Original) The machine-readable medium of claim 12, wherein the processing instruction is a processing identification instruction.

17.   (Original) The machine-readable medium of claim 12, wherein the specified substring is at least one of "zHM", "zHG", and "zHT"

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18.   (Original) A computer comprising:

a processor to execute a processing instruction;

a memory element coupled to the processor;

input and output facilities coupled to the processor;

at least one register located within the processor, said at least one register able to contain

at least one string;

said processor to

execute a processing instruction to interpret a numerical quantity in the at least

one register;

verify at least one processing feature is supported;

scan the at least one string for a multiplier;

scan the at least one string for a frequency; and

use the multiplier and frequency to determine a maximum operating frequency.

19.   (Original) The computer of claim 18, wherein the register is a general purpose register.

20.   (Original) The computer of claim 18, wherein the processing instruction is a processing
identification instruction.

21.   (Original) The computer of claim 18, wherein the at least one string is a brand string.

22.   (Original) A processor comprising:

a first register;

a second register to store maximum operating frequency information;

at least one execution unit to execute instructions;

said processor to

execute a processing instruction to copy the maximum operating frequency

information from the second register to the first register;

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verify at least one feature relating to the maximum operating frequency

information is supported;

scan the maximum operating frequency information in the first register for a

multiplier;

scan the maximum operating frequency information in the first register for a

frequency;

use the multiplier and frequency to determine a maximum operating frequency of

the processor.

23.   (Original) The processor of claim 22, wherein the first register is one of a plurality of general purpose registers.

24.   (Original) The processor of claim 22, wherein the first register is the EAX register.

25.   (Original) The processor of claim 22, wherein the second register is one of a plurality of control registers.

26.   (Original) The processor of claim 22, wherein the processing instruction is a processing identification instruction.

27.   (Original) The processor of claim 22, wherein the maximum operating frequency information is a brand string.

28.   (Original) The processor of claim 22, wherein said processor is further able to measure a current operating frequency of the processor; and

compare the maximum operating frequency to the current operating frequency.

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29.   (Original) The processor of claim 22, wherein the maximum operating frequency information is stored in the second register at manufacturing time.

30.   (Original) The processor of claim 22, further comprising system software to store maximum operating frequency information set at manufacturing time.

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